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ABSTRACT

Utilizing the findings of the research and development activities conducted by California's Career Education Task Force at 36 school district demonstration sites to develop prototype career education models in grades K-12 and adult classes, this handbook was developed to provide administrators with procedures for the infusion of career education into an ongoing school program. Following a brief introduction to career education, five components of career education program infusion are covered: (1) Planning a Career Education Program (a systems approach to implementing career education, and developing the implementation plan which involves developing a rationale for change, determining subject and grade level involvement, developing goals and objectives, determining staff development needs, planning a staff development program, identifying curriculum areas that require revision, providing for resource materials, determining administrative procedures, obtaining and allocating resources, developing a time chart, determining assessment procedures, and ensuring program continuance and growth); (2) Organizing the Program (selecting a manager, establishing task forces and an advisory committee, selecting consultants, and establishing communications channels); (3) Obtaining Resources for the Program (budget categories and sources for funding and other resources); (4) Implementing the Program (getting started, staff development considerations, and materials development); and (5) Evaluating the Program (obtaining feedback, and designing the components for evaluating program management, staff development, materials development, selection and use of materials, implementation, and instrumentation). (EM)

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CE Implementing Career Education

An Administrator's Handbook

Prepared under the direction of the
Vocational and Career Education Services Section
Career Education Unit

CE 011 552

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Preface

Infusing innovative and developmental projects into ongoing school-system programs is a high risk activity. To reduce this risk in career education projects, an implementation system should be developed that relates student need, project functions, available resources, and evaluation. The implementation system should recognize the interdependency of the career education functions, and it should provide maximum management control that accounts for the personnel, time, and funds required to accomplish the necessary tasks in meeting student needs. The system should also provide for in-process evaluation and program correction, as well as terminal accomplishment reporting with associated recommendations.

A properly implemented system for infusion of career education should bridge gaps that often exist between program management, resource allocation, and evaluation. It should provide concise answers to questions regarding the existing educational program; the needs of the program; goals and objectives for infusion of career education (*who* will do *what* by *when*); resources that will be used to achieve infusion; and the degree to which the objectives have been accomplished.

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Other Career Education Publications of the California State Department of Education

Career Education: A Position Paper on Career Development and Preparation in California (1974)

Career Education Instructional Strategies Guide (in preparation)

Career Education Microfiche Collection Catalog (1975)

Community Involvement in Education (in preparation)

Concept and Process (in preparation)

Nine Model Practices in Career Education (in preparation)

Sources of Information on Career Education: An Annotated Bibliography (1975)

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Introduction

When and where did career education begin? Giving an exact answer to this question would be difficult; elements of career education are found in many programs, practices, and innovations that have been introduced over the years. However, career education as an organized movement was given impetus in January, 1971, when Sidney P. Marland, then Commissioner of Education, declared career education to be one of the major concerns of the U.S. Office of Education. In the same year, the California State Department of Education established the Career Education Task Force to conduct research and development activities to develop prototype career-education models in grades K-12 and classes for adults.

Philosophy, Definition, and Goals of Career Education

One of the first activities of the Career Education Task Force was to develop a philosophy, a definition, and goals for career education. For an administrator implementing the concepts of career education, an initial step will be to adapt the existing philosophy, definition, and goals to the local setting.

Philosophy

The following philosophical statements may assist local educational agencies in the task of implementing career education:

1. In conformance with the philosophy of equal opportunity, those involved in career education must try to increase the awareness and aspirations of all students and expand their career options to an equal degree without regard to stereotypes based on race or sex.
2. The belief that a dichotomy exists between academic and vocational education is rapidly becoming outmoded.
3. The development of attitudes, basic educational skills, human relations skills, and habits appropriate for the world of work is as important as training in job-performance skills.
4. Prevocational orientation is necessary to provide motivation and to introduce the realities of the world of work to youth and adults.
5. Career-centered instruction should be developmental; that is, it should be continuous, not terminal. Career development—like development in citizenship, in aesthetics, and in physical, social, and intellectual abilities—is a gradual and continuing process.
6. Career education should provide maximum alternatives for students to stay in school, to pursue advanced education, or to secure employment.

Definition

The following definition of career education was developed by the Career Education Task Force:

> Career education is a comprehensive educational process that begins in early childhood and continues throughout the life span of an individual. All educators are involved in providing this opportunity for a broad approach to economic, social, and psychological development for every student. Career education is not an add-on to the curriculum; rather, it is infused into all subject matters. With emphasis on individual development, instruction and guidance are integrated and articulated from grade level to grade level and from institution to institution, offering each student multiple opportunities to assess personal attributes and aspirations; explore educational and occupational opportunities; develop personal, social and educational goals; make realistic choices about life styles and values; and develop the ability to solve problems related to present and future roles, settings, and events of life.

Goals

Given a definition of career education, administrators will need a set of goals as guidelines for planning, promoting, implementing, and evaluating their career education activities. The California State Department of Education has developed ten

suggested student goals for career education. Local educational agencies may adapt these goals to meet local needs.

1. *Self-Awareness*
   Goal: Students will develop a positive attitude toward themselves and others, a sense of self-worth and identity, and motivation to accomplish personal goals.
2. *Career Awareness*
   Goal: Students will develop a continuing awareness of career opportunities and relate these opportunities to their personal aptitudes, interests, and abilities.
3. *Educational Awareness*
   Goal: Students will recognize that educational experiences are a part of total career preparation and development.
4. *Economic Awareness*
   Goal: Students will have an understanding of the U.S. economic system and be aware of the relationship of productive work to the economy and to the individual's well-being.
5. *Career Planning and Decision Making*
   Goal: Students will engage in the career development process by increasing their self-awareness and their knowledge of the world of work and the society that affects it, and they will accept responsibility for the series of choices that carry one along the career development continuum.
6. *Career Orientation*
   Goal: Students will explore career possibilities that will increase their exposure to the options available to them in the world of work.
7. *Career Exploration*
   Goal: Students will plan and participate in a program of career exploration that contributes to their search for occupational satisfaction.
8. *Career Preparation*
   Goal: Students will acquire marketable skills leading to entry-level employment in one or more occupations of a self-selected cluster, by means of in-depth exposures designed to enhance the students' employability and help them recognize that advanced training and/or continuing education may be necessary.
9. *Attitude Development*
   Goal: Students will develop a positive attitude toward work and appreciate its contribution to self-fulfillment and to the welfare and productivity of the family, community, nation, and world.
10. *Consumer Competencies*
    Goal: Students will acquire sufficient economic understanding and consumer competency to make wise decisions in the use of their resources.

Development of the Career Education Models

Early research and development activities in model development for infusion of career education were conducted at demonstration sites in 36 California school districts that were selected to represent differences in organization, geography, socioeconomic level, and school and community size. Findings from these research and development activities are the basis of the guidelines and recommendations contained in this handbook.[1] Because of the broad base of the developmental program, the procedures given here for career education infusion and curriculum change are applicable to either small or large school systems.

At each participating demonstration site, a project director was appointed, staff development programs were initiated, and appropriate committees were designated. Also, experimental materials were shared with other demonstration sites. The sites were provided with a financial grant, consultant time, a library of materials, and exchange of information and monthly meetings for key project personnel. Monetary grants were obtained from several sources; the total sums available to single school districts ranged from $41,000 to $200,000. Consultant time available to each local project varied according to need.

A wide range of administrative practices emerged from the various school districts participating in the demonstration program. For example, some project directors were full-time, others part-time; staff development programs varied in content and in level of staff involvement; and committees were used in varying degrees. Also, the materials produced differed in both quality and quantity.

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[1]For a report on research and development activities at California demonstration sites, see *California Career Education Research and Development Project*, final report of Project No. V361012L, Grant No. OEG-0-73-2921. Prepared by the Career Education Task Force. Sacramento: California State Department of Education, 1975.

Planning a Career Education Program

A Systems Approach to Implementing Career Education

Curriculum change should be conducted as an evolution, not a revolution, and it must involve more than merely publishing a new curriculum content outline or buying the latest textbook. The updating of curriculum must be a continuous and comprehensive process if today's education is to be of maximum usefulness to tomorrow's citizens.

Career education provides a tool for the infusion and phase-in of many innovations in an educational system. For example, it can facilitate transitions from impersonal group instruction to personalized instruction, with emphasis on development of each student's self-awareness and unique potential; from lock-step progression to individualized, open entry and exit; from "assign, read, and recite" to lively participation of the students in creative activities; and from the isolated, ivory-tower concept of education to involvement and interaction of the total community.

Curriculum change involves more than curriculum materials and subject matter. It involves the entire community—teachers, students, administrators, counselors, parents, school boards, business, industry, and labor. Therefore, effective curriculum development cannot be viewed as merely changing one or two elements in the educational system. Of course, educators may choose to change or modify one element at a time, but such modifications must be made with full consideration of the effects on other elements.

Advantages of the Systems Approach

Change is best accomplished in a planned, organized process or system, and this implies the need for systems analysis. Jere Clark defines systems analysis as an innovative method for planning (programming) the orderly coordination of all components of a process or a problem situation with emphasis on precrisis—as distinct from postcrisis—management.[2] Central to the mission of systems analysis is a practical, functional definition of objectives, which serves not only to guide the search for solutions but also to measure and evaluate results.

Bela Banathy indicates that a system is an assemblage of units by some form of regular interaction or interdependence consisting of purpose, process, and content. "Purpose" identifies what has to be done and gives direction to the whole system. "Process" is the operative element and function of the various components necessary to accomplish the purpose. "Content" is the sum of all the components of the system.[3]

Major Tasks in Implementing Career Education

The diagram in Fig. 1 shows the major components of a career education implementation system, indicates the order of development and the relationship of the components, and provides an overview of the system. The diagram implies the performing of five major tasks:

1. Examining the community's existing educational system to determine how well it meets the community's goals and objectives for education
2. Providing staff with needed training in career education methods and techniques designed to make instruction more relevant to student needs
3. Reviewing, developing, and evaluating the curriculum
4. Implementing the revised system so that students will acquire desired career skills
5. Evaluating the revised system

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[2]Jere W. Clark, *Economics and Systems Analysis—Tools for Democratizing Education.* Paper prepared for distribution to the participants in the Second Annual National Conference on General Systems Education, New Haven, Connecticut, October 1968.

[3]Bela H. Banathy, *Instructional Systems.* Palo Alto, Calif.: Fearon Publishers, 1968.

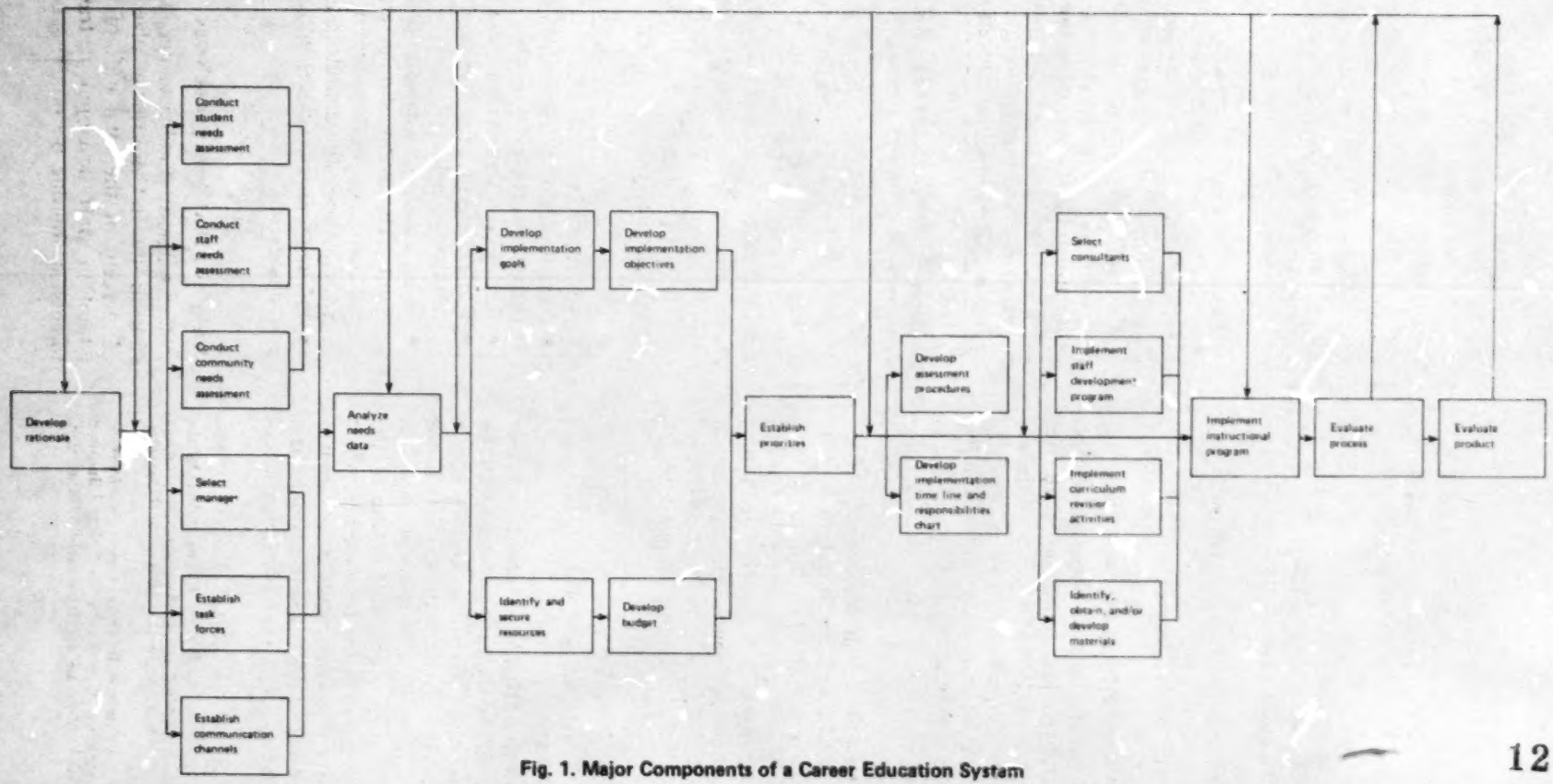

Fig. 1. Major Components of a Career Education System

Developing the Implementation Plan

Each school district must develop its own career education implementation plan based on local needs and priorities. The initial plan should include the following:

- A rationale for change
- A statement of goals and objectives
- A step-by-step outline specifying how changes will be made
- Target dates for completing the steps outlined
- Budget requirements
- Evaluation procedures

Developing a Rationale for Infusing Career Education

Every plan for infusion of career education needs a rationale that is consistent with the school's philosophy of education. The rationale serves as a guide for change and is used in promoting the career education concept within the school and in the community.

Suggested Tasks

- Examine statements which reflect a variety of views on the need for career education for the individual student and for the community.
- Compare the goals and objectives in *Career Education: Concept and Process*[4] with the goals and objectives of your school's program.
- Review *Career Education: A Position Paper on Career Development and Preparation in California.*[5]

Determining Subject-Matter Disciplines and Grade-Level Involvement

If resources are insufficient to introduce career education at all grade levels, then priorities must be established. In developing criteria to limit career education to specific grades, the administrator should evaluate the implications of all available options for the sequence and articulation of the career education concept in the total curriculum. If financial conditions require gradual or limited phase-in, multiple high school districts could phase in an attendance area, consisting of one high school and the feeder schools, as a pilot effort to be replicated in other attendance areas. Smaller school districts could develop at each school a cadre that would be responsible for phase-in operations in that school.

An effort should be made to ensure continuity and consistency of career education concepts at all grade levels.

Suggested Tasks

- Examine the scope and sequence of the school's K-12 curriculum in all disciplines. How closely do teachers adhere to the curriculum? Where are the weak areas?
- Conduct a student-needs assessment.
- Identify the career education content presently included in the curriculum, and compare with the content recommended by the county department of education.

Developing District Goals and Objectives for Implementation of Career Education

The district statement of philosophy and the assessed needs of the student and the community should be used as a basis for the development of career education goals and objectives. As a first step, the administrator should review the career education goals and objectives developed by other districts and the California State Department of Education. (See the State Department of Education position paper previously cited.)

Suggested Tasks

- Review district philosophy pertaining to career education.
- Review needs assessment data.
- Review career education goals and objectives of other agencies.
- Select a team for goals and objectives development. The team should include students, teachers, community representatives, counselors, school administrators; and parents.
- Publicize district career education goals and objectives.

Determining Staff Development Needs

The federally funded career education demonstration sites in California involved, on the average, 25 percent of the total staff of the participating school in staff development training during the three-year funding period. This cadre is expected

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[4] *Career Education: Concept and Process.* In preparation by the Career Education Unit, Vocational and Career Education Services Section. Sacramento: California State Department of Education.

[5] *Career Education: A Position Paper on Career Development and Preparation in California.* Prepared by the Career Education Task Force. Sacramento: California State Department of Education, 1974.

to provide the stimulus for involvement of the total staff.

Both the needs of the individual staff members and the staff-development needs for the district must be considered. Individual needs must be examined in terms of staff understanding of the concept of career education and of techniques for infusing career education into the curriculum. District needs must include an analysis of available resources, current career education activities being conducted by staff, and phase-in design.

Suggested Tasks
- Survey the staff to determine strengths and weaknesses in career education.
- Identify the human and fiscal resources available for career education staff development.
- Determine the extent of existing career education activities in the district.
- Assess the general attitudes of students, teachers, counselors, administrators, and the community regarding career education.
- Develop a priority listing of potential staff development activities.

Planning a Staff Development Program

Research and development at the demonstration sites has shown that effective career education staff development occurs when processes and techniques such as the following are employed:

1. Staff are provided with career education ideas, methods, and techniques that can be applied in the classroom.
2. Staff are allowed release time for staff development activities.
3. Staff development activities such as workshops are held at times other than weekends or the end of a busy working day.
4. Inservice activities are planned to meet the specific needs of groups or individuals.
5. Attendance incentives are used, for example board of education and/or university credit for completing the inservice activity.
6. Staff development consultants have experience with school and teacher classroom problems, and they present practical applications of theoretical concepts.
7. Staff development workshops include a mix of students, elementary and secondary staff, counselors, school administrators, and community persons, including parents. (Any reasons proposed for holding separate group sessions should be carefully reviewed for validity.)

Suggested Tasks
- Analyze staff-development needs-assessment information.
- Analyze resources available for staff development.
- Establish a working committee to identify incentives that will promote career education staff development and development of implementation activities.
- Identify effective existing programs as models.
- Involve students, parents, and others in the community as well as staff in formulating inservice plans and programs.

Identifying Curriculum Areas That Require Revision

Implementing career education in an existing educational program usually requires that the curriculum be revised. The extent of the curriculum revision will depend on the degree to which career education is to be infused into the existing program. The staff should consider the following approaches in developing goals and objectives for curriculum-guide revision:

- Adapt or develop resource units on career education concepts.
- Revise existing guides to emphasize career education.
- Purchase career education materials for all grade levels.
- Develop a career education guide for all grade levels as a supplement to existing guides.
- Revise the entire curriculum to infuse career education concepts.

Suggested Tasks
- Develop criteria to assess career education presently included in curriculum guides.
- Develop an incentive program for guide revision.
- Initiate curriculum revisions.

Providing for Resource Materials

Staff members will require, in addition to curriculum guides, a professional library of career education literature. Students will also require additional resource materials and current instructional media. The implementation plan should

include provision for storage and retrieval of materials—for example, a career resource center.

Suggested Tasks
- Identify reference books, professional publications, audiovisual aids, and other resource materials relevant to career education available in the school library.
- Compare a bibliography of career education materials with the materials presently available in the school.[6]
- Develop criteria for resource materials; apply to presently available materials.
- Develop a list of desired materials in priority order.

Determining Administrative Procedures for Implementation

If administrative procedures are considered during the planning stage, implementation will have a greater chance of success. Staff members responsible for planning should keep in mind that the program tasks are interrelated. Failure in one part of the project design will have repercussions in other aspects of the program.

Suggested Tasks
- Establish procedures for selection of a career education coordinator or program manager.
- Determine the extent to which task forces will be used.
- Establish procedures for collecting information for the planning process.
- Determine sources of financial support.
- Develop incentives to encourage teacher participation in career education curriculum change.
- Plan and define channels of communication.

Obtaining and Allocating Resources

A plan for curriculum change should include strategies for obtaining the fiscal, human, and physical plant resources needed to ensure success. The plan must be adjusted to accommodate resource limits. Staff resources also must be intelligently allocated; the practice of assigning a few staff members to too many projects should be avoided, even though the busiest people often make the greatest contributions.

Suggested Tasks
- Identify internal and external financial resources that are available for career education.
- Construct budget estimates for career education.
- Identify personnel available for consultation services.
- List ways in which career education may be infused in other community, district, or school programs and projects.
- Determine existing federal- and state-funded programs in which funds might be redirected to carry out both the program objectives and the career education objectives.

Developing a Time Chart for Implementation

School districts may require a three- to five-year phase-in program for career education implementation. Decisions in establishing implementation time lines will be influenced by existing staff, curriculum, and other available school and community resources. If limited resources for implementation necessitate selective involvement, attendance-area boundaries should be used to identify participants (for example, a single high school and the associated feeder schools). Other partial involvement procedures could include phase-in by component, such as career guidance activities, a work experience program, a career center, or placement activities; or the phase-in could be by grade level.

Suggested Tasks
- Develop a tentative time chart for completion of inservice curriculum and instructional materials development, in-school and community implementation, and evaluation activities.
- Indicate by means of a chart the individual(s) or group(s) who will complete the tasks.
- Consider the use of Program Evaluation and Review Techniques (PERT) or a Time, Talent, and Task chart ("Three T" chart).

Determining Assessment Procedures

Evaluation should provide a continuing assessment of goals and objectives. The findings are used as feedback into the system for change. For example, if an objective is to provide a career education workshop for 50 secondary teachers but only ten teachers attend, workshop leaders should determine what caused the low attendance and revise future workshop or inservice plans.

Effective evaluation requires a well-planned design. If assistance is required, consultant help

[6] See for example *Sources of Information on Career Education: An Annotated Bibliography*. Compiled by the Career Education Task Force. Sacramento: California State Department of Education, 1975.

should be requested from such sources as the county office of education, the district office, the State Department of Education, and colleges and universities. The services of consulting firms and evaluation centers may also be employed if adequate financial resources are available.

Evaluative data may be formative or summative. The purpose of formative data is to provide information for modification of processes; the purpose of summative data is to provide information for assessment of outcomes.

Evaluation should not be viewed as a means of identifying "good" or "bad" teachers, materials, and other components of the program; its purpose is to provide useful information regarding techniques and processes so that career education may be improved. To ensure effective evaluation, the plan must make the objectives for career education explicit at the outset, indicate the measures to be used to achieve the objectives, establish appropriate timelines, and specify acceptable performance levels.

Staff members should be made aware that the purpose of evaluation is to provide data for program improvement. This knowledge will help dispel anxieties about evaluation, and it will also elicit staff support.

Suggested Tasks

- Specify the project goals and objectives, and include the time, quality, and quantity measurements for each task.
- Design a plan for periodic assessment of career education impact on student achievement; effectiveness of instructional materials in career education; teacher understanding of, and ability to communicate, career education concepts; and other objectives.

Ensuring Program Continuance and Growth

For a career education program to be effective and have a long-term impact, change must be viewed as an ever-present characteristic of curriculum. How much influence will be felt five years, or ten years, after career education has been introduced into the school program? After the initial burst of enthusiasm that accompanies implementation of a new concept, the spirit of change often diminishes, and it may give way to a conservatism that inhibits program growth. To avoid this, long-range plans should include provision for stimuli for change or revision of the career education design.

Suggested Tasks

- Decide how new staff will be oriented to the career education curriculum.
- Refine hiring procedures to ensure that new staff are prepared for a career education curriculum.
- Ensure that at least one staff member will be assigned to keep informed of trends in career education and to maintain communication with federal and state agencies and other resources with regard to inservice opportunities and publications.

Organizing the Program

Selecting a Manager

The function of a career education manager is chiefly administrative. The manager has a vital role in providing a bridge for the program between community, students, and school personnel; therefore, to be effective the position should be a part of the school's administrative line of communication.

The minimum qualifications for a career education manager should include the following:

- Demonstrated administrative and interpersonal skills
- Classroom experience
- Work experience outside the field of education
- Knowledge of K-12 curriculum and the career education concept

Major areas of responsibility for a career education manager are planning and organizing the program, coordinating other resources, and managing the career education infusion process. Specific functions of the manager may include the following:

- Be responsible for drafting a plan of action.
- Review career education in other school systems.
- Engage and schedule consultants.
- Supervise the development of curriculum materials.
- Arrange for the evaluation of curriculum materials.
- Participate in the design and implementation of staff development.
- Serve as liaison for career education between various school programs and between school and community.
- Write reports on career education activities to inform school personnel, the local board, the community, and others interested.

Establishing Task Forces

Effective task forces are often crucial to the success of the career education infusion process. Therefore, it is most important to think through the function of every task force to confirm its relevance to the goals and objectives of career education.

Task force members are usually appointed by the district superintendent. The administrator should assign specific work to each task force and where possible establish incentives for the task force members. Such incentives to serve might include prestige value, professional growth, inservice credits, or release time. The membership of a task force should reflect a cross-section of interests in the career education project. The term of office should be reasonably short to permit replacement of ineffective members.

Policy Task Force

An effective procedure in a career education project is to establish a task force whose function is to make appropriate policy recommendations regarding such issues as the following:

- Should staff get extra pay for curriculum work?
- Who will develop and evaluate progress reports?
- Who will modify the action plan after the project is under way?
- What types of incentives should be offered for inservice?

Task forces should be as small as possible consistent with maintaining representation of appropriate interests. A typical policy task force might include the following:

- The district superintendent or the superintendent's assistant in charge of instruction
- The manager of career education

- Elementary and secondary curriculum supervisors
- Department chairpersons
- An individual from the community
- Student body representative(s)
- A teachers' association or union representative

Curriculum Task Force

The curriculum task force is responsible for curriculum materials, assessment, selection, and development. The key to establishing an effective curriculum task force is to define specific tasks, set target dates for their accomplishment, and provide sufficient resources for the task force to do the job. Specific tasks include the following:

- Reviewing and evaluating materials prepared by other schools
- Determining format for teachers' guides
- Developing student and teacher materials
- Selecting teachers for classroom evaluation of tentative curriculum materials
- Making recommendations for staff development programs
- Preparing final scope and sequence for curriculum

A curriculum task force might include the following:

- A curriculum director or assistant superintendent in charge of instruction
- Elementary and secondary curriculum supervisors
- Classroom teachers at all grade levels and subject areas affected by the project
- Department chairpersons
- Students
- Elementary and secondary librarians
- Career education manager
- Guidance counselors

After the project has been established, curriculum subcommittees are often effective. These specialized groups may carry out specific tasks as directed by the curriculum task force.

Career Education Advisory Committee

Successful career education programs maintain community involvement. This linkage can sometimes be established through the local board of education or through a career education advisory committee. Although the latter group would not determine policy, its functions would include promoting public interest in career education and providing input to the instructional program of the schools.

The career education advisory committee should represent a broad spectrum of community interest. A typical advisory committee might include the following:

- The superintendent or assistant superintendent of schools
- The career education manager
- Representatives from business, labor, and industry
- Representatives from the PTA, the local chamber of commerce, and service clubs as appropriate
- A newspaper editor
- Parents
- Students

Selecting Consultants

The functions of a consultant in a career education program include helping the manager diagnose management problems and develop strategy; advising the manager on procedural and technical matters; recommending solutions to problems; and in general helping to implement career education concepts. When engaging a consultant, the administrator should identify a need, then seek talent appropriate to fill the need. "Known experts" may be wonderful speakers, but they may lack the time and interest to work closely with a career education manager. An effort should be made to match the consultant's talents with specific problems; for example, a consultant may be needed who has managerial expertise, or editing skills, or competence in public relations and public speaking.

To obtain the full value of consultant services, the manager must define the problem adequately to the consultant. The following steps outline the process:

- Concentrate on fundamentals in defining the problem; ignore superficial symptoms
- Localize the problem within the context of the project
- Describe the interdependence of the program components
- State the objectives and constraints of the program so that the consultant can recommend reasonable alternative solutions

Careful advance planning is necessary to ensure best use of the consultant's time. For example, before the scheduled appearance of the consultant, the administrator should do the following:

- Be sure to have necessary materials—including files—available for the consultant's review.
- If the consultant's assistance is required to evaluate or review printed material, if possible mail the material to the consultant for his advance consideration, or communicate the needed information by telephone. This may eliminate the need for an advance on-site visit.
- Give careful consideration to use of the telephone in consultant contacts; this may be more effective and less expensive than writing a letter.
- Provide the consultant with a written agenda in advance of his visit.
- Provide school personnel with an advance agenda.

Establishing Communication Channels

Because a curriculum change program has many elements, channels of communication must be established to keep project participants and the community informed about the process of career education infusion. This requires use of special types of media, which may include the following:

- Agendas—to help ensure well-run meetings
- Announcements—for project visibility and staff development; to announce personnel changes
- Fact sheets—to inform project participants about career education programs
- Information brochures—for project promotion and response to mail requests for project information
- Memorandums—to communicate policy decisions and other important project information
- Minutes—to record proceedings of task-force meetings
- Newsletters—to inform members of the educational and lay communities, including students
- News releases—to call attention to significant events relating to career education
- Progress reports—to inform project participants and supporting agencies about progress of the project. At least three important functions are served by progress reports:
  1. They become part of the feedback mechanism by which changes are made in the local plan of action for career education.
  2. They are an important communications link through which each element in the plan becomes related, enabling the program participants to see more clearly their role in the larger scheme.
  3. They can help to generate new resources to support the program.
- Radio and television spot announcements—to increase project visibility and publicize staff development opportunities
- Summary notes—to record main points of consultant efforts and individual conferences with superintendents and community leaders
- Summary reports—to inform supporting agencies and project participants of results

Obtaining Resources for the Program

School systems have shown remarkable inventiveness in harnessing scarce resources to the task of planning and implementing career education. The budget will reflect the scope of the plan of action. For more effective analysis of the total resources committed to the effort, some schools have found it useful to construct both a projected-costs budget and a second, informational budget that breaks down the costs of all equivalent services contributed to the program.

Resources should not be stretched so far that quality of the program suffers. If needed resources are not available, or if more resources are available than were originally anticipated, priorities should be reset.

Budget Categories

Budget estimates for planning and implementing career education might be broken down under these headings: personnel costs; consultant services; staff development; purchase of resource materials; development of curriculum materials; and miscellaneous.

Personnel Costs

The budget category for personnel costs should include provision for the following:

1. Project managers, part-time or full-time; may include related secretarial services. (Some school systems appoint a project manager as part of the regular contract.)
2. Career-center personnel (director, aides, and career counselors)
3. Work experience coordinator (for special career-education exploration)
4. Placement services
5. Clerical and secretarial services

Funds for project personnel may be available through state or federal grants, foundations, and business and industry sources. Full payment of personnel time may not be necessary; most task force work and some staff development time may be provided by school personnel on a voluntary basis or at less than the regular full-time rate, particularly when professional incentives are provided.

Services for curriculum development and other specialized tasks may be available on an incentive basis. Minimum days may also be held to permit scheduling curriculum planning or development.

Consultant Services

The services of outside consultants can be obtained on a fee-plus-expenses basis. However, personnel from state departments of public instruction, from county offices of education (within their county), and from industry education councils usually contribute consultant services without cash payment. If a career education advisory committee has been appointed, it can be a valuable resource in identifying potential consultants, many of whom will be community members available without fee.

Staff Development

This item usually requires the largest budgetary allotment. The total amount depends upon whether the staff development program is for college credit, is of long or short duration, provides cash payments for the participants, or is part of a district-organized program for staff development.

Obtaining Resource Materials

This item includes library materials for students and professional library materials for staff. Regular board of education funds plus supplementary grants, if the latter are available, can be used for purchase of needed materials. Business, industry, and labor organizations are excellent sources of free or inexpensive supplemental materials.

Regular ongoing school budgets usually include funds for books and materials that may be used for special projects.

Development of Curriculum Materials

This category would include provision for release time and/or compensation for curriculum task force members assigned to the production of curriculum materials. Printing costs for locally prepared teachers' guides or resource units would also be included here.

Miscellaneous

Included under the miscellaneous heading would be costs for such items as travel, meals, telephone, and audiovisual equipment and materials, for example VIEW decks and readers.

Funding and Resources

Among the sources that can be approached for funds, printed materials, and services on behalf of career education are local school boards; the State Department of Education; federal funding agencies; the United States Office of Education; national foundations; business and industry groups; and private community organizations.

Resources from Local School Boards

Local school system input is the largest portion of the resources committed to a career education effort. Costs to schools will vary according to the scope of the project.

An administrator who is implementing career education should review the objectives of other curriculum projects under way in the local schools; often these programs have a supportive role for career education that will require coordinating efforts. The following are examples of such programs:

- Early childhood education
- Special education
- Mentally gifted and talented
- Migrant education
- Bilingual and bicultural education
- Guidance
- Vocational education
- Inner-city programs for the disadvantaged

Assistance from the State Department of Education

The Career Education Unit in the State Department of Education should be contacted for possible assistance in the career education project.

Funds. Federal funds for curriculum development are increasingly being channeled through state education agencies. In many cases, these resources can be directed toward implementing career education.

Consultant services. Career education consultants in the State Department of Education are available to assist the local school system in planning and implementing career education.

Materials. The Department produces curriculum materials that will assist in the implementation process.

Assistance from Private Organizations

Some school systems have obtained sizable grants of private funds to support career education. Some private organizations may contribute to the general operating budget; others may choose to fund teachers' stipends.

Many private organizations will supply speakers to supplement the revised curriculum; speakers should be drawn from the community at the request of educators and only to fulfill specific assignments. Also, field trips can be an effective extension of the classroom. A community resource file may be used as an aid in locating speakers and in setting up field trips.

Various private organizations in the community may provide materials that are of use to teachers in implementing career education. For example, many companies offer free or inexpensive career-guidance materials. All such offerings should be carefully screened to ensure their educational merit. Privately developed materials may reflect a "point of view" on given careers, but they are often of value to the students.

Implementing the Program

Getting Started

Local educational agencies need not wait for federal funding to begin implementing a program for infusion of career education. A start may be made by redirecting existing resources. For example, regular funds for audiovisual library materials and staff development may be used with a focus on career education. Also, community resources may be available for activities that will get the implementation started. Pamphlets, films, and slides that will be valuable for initiating implementation should be identified; these materials may be for use by students, staff, or both. Many catalogs and bibliographies are available to facilitate the search.

Staff Development: A Prerequisite for Program Success

Successful implementation of a career education program depends upon—and is almost synonymous with—an effective staff development program. Staff development is an institutional need which must be met before the staff can provide the most effective career education program for students. The local educational agency has the responsibility to initiate and maintain an effective training program to meet the needs of all the participating staff members.

Staff development and program development may occur simultaneously. As program needs are revealed, additional staff development needs will be identified. The needs assessment—together with specific, preplanned objectives and a carefully planned agenda—should be the basis for planning, implementing, and evaluating all preservice and inservice programs for staff development. The needs statements should be translated into staff development objectives that indicate who will achieve what objectives, how the objectives will be achieved, and under what conditions they will be achieved.

Considerations in Staff Development Activities

Among the matters to be considered in staff development activities are methods of staff development; content of the staff development activity or document; the audience for the activity or document; and selection and orientation of instructors.

Methods

Inservice activities should be tailored to available resources and the needs of the staff. The following are some suggested methods for staff development:

- Workshops
- Publications
- College courses
- Faculty meetings
- Media resources
- Lecture
- Discussion
- Problem-solving groups
- Task forces

Content

The focus of a staff development activity should not be too broad; thorough coverage of a few principles is preferable to a survey that attempts to touch all bases. Career education staff development activities should present strategies for classroom infusion. Aspects of the comprehensive career education concept that may be presented include decision-making skills, placement, work experience, simulation, and techniques for developing self-awareness, career awareness, and educational awareness.

Audience

All staff development programs should be designed to fit the needs of the participants. Is the planned activity or document intended for primary teachers, secondary teachers, administrators, counselors, or a combination of these? Mixed groups

enhance the articulation of programs and provide an opportunity for staff from all levels to talk to each other. Individuals will benefit by gaining an understanding of the goals, objectives, and problems of their colleagues at other grade levels and in different subject fields.

Experience of the California Career Education Unit suggests that although there are advantages in providing a mixed audience for staff development activities, the diverse backgrounds and interests of the participants may complicate the task of presenting relevant information to the total group. This handicap may be overcome by providing small-group discussions pertaining to the unique interests of specific groups.

Instructor(s)

Competent instructors and consultants are keys to success in staff development activities. Instructors should be thought of as consultants to the project and should be selected with as much care. Most career education managers would agree that a necessary first step in selecting an instructor or a consultant is to examine critically the educational background and experience of each candidate.

One of the requisites of a good instructor is an understanding of teachers and their problems. However, the instructor selected for the staff development activity may have to be informed about the special needs and problems of the staff. Instructors can learn a great deal about these needs by directly confronting the real issues of the classroom. Some instructors, for example, have found it helpful to visit or teach a class in the program at the elementary or secondary level before starting a staff development assignment.

Staff Development Workshop Activities

Duration. Staff development workshops vary in duration: they may last for a day or a few successive days; they may require one day a week or one day a month for several sessions or for an entire semester; or they may take the form of a five- or six-week summer workshop. The time considerations will depend on the task to be accomplished and the resources available. There will seldom be enough resources to do all that is desired, so priorities must be established based on expected outcomes.

Fees. In some staff development programs, workshop participants may be required to pay tuition fees. If so, scholarships and/or stipends may be available to meet this expense.

Credit for participation. Participation in a staff development course may provide board of education or district credit and/or graduate or undergraduate college credit. Credit as an incentive should be considered when staff development activities are designed.

Scheduling. In establishing a schedule of meetings for a workshop, it is advisable to survey the staff to identify the best hours for meeting. Multiple offerings may be desired. Release time may provide maximum benefits.

Evaluation. Workshops and other staff development activities must be evaluated so that any needed or desired changes may be made in future programs. The evaluation process should include pretesting and post-testing, and the staff should be informed that evaluation is used to improve programs, not to condemn individuals. Also, a follow-up evaluation should be made to determine the outcome of the staff development activity.

Publicity. Adequate notice of the program offering should be provided to solicit support and participation in the staff development program. After the activity is completed, the outcome should be publicized to promote future interest and support.

Implementing Materials Development

Career education curriculum development includes such tasks as reviewing, selecting, revising, and/or writing instructional materials and learning materials. The first step in the development of curriculum materials should be to prepare a written overview of the proposed career education infusion of the existing curriculum. This will include specifying the concepts to be taught and the objectives of the program at all grade levels. The overview will help to eliminate unintentional repetition of themes, provide reinforcement of major ideas, and blend the career education with academic and vocational courses.

Reviewing Existing Curriculum Materials

The school course of study should be assessed to identify areas that can be enriched with career education concepts. Career education materials used in other schools should also be examined. Both tasks can be completed as part of the staff development program.

Writing Curriculum Materials

Locally produced teacher guides have more than intrinsic value to the teachers who develop them.

The task of organizing and writing the materials helps the teacher understand career education concepts and apply them to the existing course of study. Some school systems, with consultant aid, have prepared guides which are models of excellence with regard to style, format, and content.

Because teachers are committed to content that fits local goals and objectives, the career education process emphasizes locally constructed curriculum content. This does not necessarily mean, however, that only locally written curriculum materials should be used; commercial publishers now offer more varied and better learning resources in career education than they did a few years ago.

A school or district that decides to develop and publish its own material should consider the following criteria:

1. *Conformance with sound educational principles.* Locally developed materials must conform to sound educational principles. Pupil materials must conform to the ways in which ideas are learned—the psychology of learning—and they must be written in a vocabulary appropriate to the grade level for which they were developed.
2. *Transferability.* The material must be transferable to other learning situations and to other school systems.
3. *Originality.* Locally produced material need not always "break a new path," but it should be innovative. Material available from other school districts or from commercial sources should not be adapted or copied; reworking existing material is not a wise use of time and resources unless the resulting new material has some degree of originality or specific improvement over the old. Also, the restrictions regarding use of copyrighted material must be understood and observed.
4. *Evaluation.* Locally developed material must be evaluated to determine its effectiveness. A crucial test of the material is whether it is used and whether its use results in the specified change that the developer sought in the behavior or performance of supervisors, teachers, and/or students.

   In evaluating locally developed materials, it is also desirable to observe the interdependence of materials and groups.
5. *Style and format.* The materials should be well written. The format should arouse interest and suggest the logical development of ideas. Quality reproduction techniques should be used.

Evaluating the Program

Obtaining Feedback

Career education system directors should evaluate the processes used to achieve their established goals and objectives and the outcomes resulting from the processes. No program is likely to succeed for long if it does not include provision for change. Feedback obtained from opinionnaires, survey instruments, pretests and post-tests, records of student attendance and performance, conversations, interviews, and observations can assist managers in determining where and when plans need to be modified. This process of feedback and modification can provide quality programs and help ensure attainment of desired objectives.

Designing the Evaluation Components

Evaluation should be designed to determine the strengths and weaknesses of all processes in the career education system. In evaluation as in all other aspects of the program, staff should keep in mind the interdependence and interaction of the various processes.

Evaluation components should be designed for the following:

- Program Management
- Staff Development
- Materials Development
- Selection and Use of Materials
- Implementation
- Instrumentation

Program Management

The following are recommended activities in evaluating career education program management:

- Periodically assess the flow and level of communications.
- Periodically review files containing agenda, minutes, notes, and other communications.
- Periodically check to determine whether members of the curriculum group, policy group, and community groups clearly understand their part in the program.
- Determine the adequacy of available resources and materials for both task force and classroom use.
- Evaluate the effectiveness of consultant activities and the value of scheduling meetings and task-force activities.

Staff Development

Formative and summative data must be obtained as the basis for evaluating staff development activities. The evaluation should provide answers to questions like these.

- Are teachers in sufficient number being trained for infusion of career education, and does the training meet accepted quality standards?
- Are incentives adequate to attract and sustain teacher participation?
- How effective are the consultant activities pertaining to staff development?
- Are the available space, equipment, and materials adequate for staff development?
- Are teachers and counselors fully informed about the availability and use of career education materials?

Materials Development and Use

Career education materials should meet the following tests:

- Were the materials attractive and accepted by students and staff?
- Were the materials easy to use?
- Did the materials accomplish what they were intended to accomplish? Outcome measurements should be made at the termination of an activity, and a post-measurement should be made sometime later to determine residual effect.

- Were materials cost effective? Experimental and control groups should be used in making comparisons between materials, especially when previously untried innovative materials have been used.

Implementation

The following are recommended steps in evaluating the career education implementation process:

- Define the objectives of the career education program based on needs assessment.
- Select a representative sample of objectives for evaluation.
- Identify and define career education program variables.
- Identify and obtain necessary assessment instruments.
- Develop needed instruments not available from existing sources.
- Pilot-test instruments to determine their validity and reliability.
- Design a methodology.
- Select experimental and control groups.
- Test subjects and gather other needed data.
- Analyze and interpret data.
- Develop reports for staff, superintendent, board of education, and community. Adapt reports to the audience as necessary.
- Modify the career education system as required within the limits of available human and fiscal resources.

Evaluating objectives. Objectives for implementation should specify process and product clearly and fully enough so that the degree of attainment may be measured. Objectives that are stated only in terms of quantity are relatively easy to measure:

- Four hundred teachers will take a staff development course in career education.
- Library references in career education will be increased by 20 percent.
- All twelfth-grade students will take standardized test of career maturity.

Objectives that are based on behavioral change are much more difficult to measure, but they are the more important type. By restating the above objectives in behavioral terms, we can identify new dimensions of measurement:

- Four hundred teachers will improve their knowledge of career education during a three-day staff development program as demonstrated by a pretest/post-test gain score of 40 percentage points in an appropriate assessment instrument.
- The circulation of career education library references will increase by 30 percent after a three-week career education awareness campaign.
- After participating in a six-week career education seminar, all twelfth-grade students will demonstrate an increase of 30 points on a standardized test of career maturity.

Instrumentation

The following are categories of instruments or data sources that should be considered for use in the evaluation components:

- Standardized tests
- Locally developed tests
- Opinionnaires
- Observation report forms
- Interview sheets
- Survey questionnaires
- Material review checklists
- Student records

Standardized vs. locally developed tests. If standardized instrumentation is not available to meet a specific need, instruments may have to be developed locally. However, test construction is a highly specialized field, and before the decision is made to develop a test, all relevant standardized instruments should be carefully reviewed for possible application or adaptation. If instruments are to be made, qualified staff must be secured. If the needed expertise is not available, the "make" idea should be abandoned.

Opinionnaires. Opinionnaires are of value in conducting needs-assessment and priority-setting activities. They have an advantage over conversations in that they provide a uniform response sheet that may be used for reference in planning and in determining areas that need further research.

Observation report forms. Observation report forms act as a guide to managers in the gathering of needed process information. Also, their use provides structure and promotes objectivity in staff and student review sessions.

Interview sheets. Interview sheets or forms should be developed to facilitate obtaining information by face-to-face or telephone conversations. Personnel must be trained in interview techniques and use of the interview form to ensure maximum and uniform response. The form should be simple and require minimum time and writing to com-

plete; otherwise, it will tend to distract the interviewer and lead to biased responses.

Survey questionnaires. Survey questionnaires can provide an economical source of data. They may be mailed to prospective respondents, or they may be distributed for completion at the conclusion of an activity such as a field trip or a staff development workshop. Questionnaires should be kept brief, and they should not include questions pertaining to information that is available from other sources, for example student records or personnel records. Questions should be asked only if there is a predetermined use for the answer; items that "may be useful someday" should be left out.

Questions that call for a response by check mark are preferable to open-ended, subjective-response questions. If open-ended questions are used, the person recording the data should be skilled in interpreting the responses. Usually, such subjective data must be translated into check-type categories for tabulation and analysis, and this can be a time-consuming (and thus costly) process.

Material-review checklists. Checklists may be used to survey opinion about lesson plans, audio-visual materials, workbooks, and other locally and commercially produced materials. The checklist is used to provide uniform objective response to a number of documents or media by a number of observers. Without such a checklist, material review tends to be very subjective.

Student records. Student records provide data on such matters as attendance, dropout incidence, grade-point averages, course selection, work experience, placement, and disciplinary actions. If desired data can be obtained from student records, that source should be used in preference to interviews or other similar techniques.

Summary

The purpose of evaluation in a career education program is to develop information that may be used for improving the program. However, "new" is not necessarily synonymous with "better," and evaluation data may provide findings that recommend continued use of certain materials or techniques rather than their modification or discontinuance.

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